slim, glossy black, with a long, deeply forked tail, conspicuous crimson eyes, and duller unglossed grey underparts. This species breeds in the Himalayas and north-east Indian hills, and winters south through most of peninsular India, Sri Lanka, Thailand and Peninsular Malaysia (Ali and Ripley 1983, Grimmett *et al.* 1998, Robson 2000).

EYEBROWED THRUSH *Turdus obscurus*

Several flocks of 40-200 individuals feeding on the ground were seen during Jan-Feb 1995-1998 on the east coast of Great Nicobar Island (6°76'-6°79'N, 93°81'-93°84'E). In India, this winter visitor is reported mainly from the Himalayas, especially in the north-east, but there are also records in the south and Sri Lanka (Ali and Ripley 1983, Grimmett *et al.* 1998), and it is a fairly common winter visitor in Thailand, Peninsular Malaysia and the Greater Sundas (Robson 2000).

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K. Sivakumar, Wildlife Institute of India, Chandrabani, Dehradun 248 001, India; Email: ksivakumar@wii.gov.in

R. Sankaran, Salim Ali Centre for Ornithology and Natural History, Coimbatore 641108, India.

A large roost of Eurasian Marsh Harriers *Circus aeruginosus* at Keoladeo National Park, Bharatpur, India

ASHOK VERMA

The Keoladeo National Park in Rajasthan, India (27°7'-27°12'N, 77°29'-77°33'E) is a World Heritage Site, famous for its wintering palearctic waterfowl. The total area of the park is about 29 km^2, of which 8.5 km^2 is wetland, and the remainder is woodland, savanna-type grasslands and savanna with thickets (Ali and Vijayan 1986).

Of 16 species of harrier worldwide (Simmons 2000), six winter in the Indian subcontinent (Ali and Ripley 1983): Pallid *Circus macrourus*, Hen *C. cyaneus*, Montagu's *C. pygargus*, Pied *C. melanoleucos*, Eastern Marsh *C. (aeruginosus) spilonotus* and Western Marsh *C. aeruginosus* Harriers. In Keoladeo National Park all except Eastern Marsh Harrier have been recorded wintering (Prakash 1988).

Harriers are known to roost communally in tall grasses and reeds outside their breeding season (Newton 1979). Large harrier roosts in India have been reported at Velavadar National Park, Gujarat (up to 3000: Clarke *et al.* 1998) and Rollapadu Wildlife Sanctuary: Andhra Pradesh (>1000: Rahmani and Manakadan 1987) where Marsh Harriers are greatly outnumbered by Montagu's and Pallid Harriers. Roosts largely of Eurasian Marsh Harriers (<100) have been reported from the Banni grasslands of Kutch, Gujarat (Samant *et al.* 1995).

During the day in winter around 10-30 Eurasian Marsh Harriers are present in Keoladeo National Park, but large numbers arrive each evening from outside the park to roost. Samant *et al.* (1995) first reported these large concentrations of up to 50 Eurasian Marsh Harriers. During October to March 1996-2000, harriers coming to the roost in Keoladeo National Park were counted in flight from a vantage point by team of two persons. The highest counts were 132 harriers during 1997-98, followed by 125 (1996-97), 80 (1999-2000) and 54 during 1998-99 (Table 1). During all the study years, juveniles predominated in the counts (maximum number of juveniles = 80, males = 30, females = 20).

Table 1. Monthly peak counts of Marsh Harriers roosting in Keoladeo National Park.

Month	1996/97	1997/98	1998/99	1999/2000
October	80	72	54	77
November	125	132	48	80
December	119	52	22	60
January	33	23	14	60
February	22	10	1	13
March	7	6	0	9

The roosting population increased rapidly from October, attained a peak in November, and was stable until January provided there was no disturbance to the

roost habitat. Grass-cutting by villagers, both legally and illegally, from the roost and its surroundings was considered to be the primary reason for the sharp drop in numbers after November in 1997 and 1998 (Table 1). Eurasian Marsh Harriers were observed roosting on floating vegetation (water hyacinth *Eichhornia crassipes*) in wetlands in the park when there was disturbance at their grassland roosts. After January numbers diminished gradually as return migration started.

Variation between years probably depended on rainfall, which determines the abundance of prey species, particularly waterfowl (which form about 25% of the prey items taken). Eurasian Marsh Harrier numbers were significantly positively correlated with waterfowl numbers (Pearson's correlation coefficient $r = 0.8$, $p < 0.05$). There was a positive correlation with rainfall ($r = 0.7$, $p = 0.26$), but this was not significant, perhaps due to the small sample size (n = 4 years).

The roost in the park was situated away from foraging grounds in the grassland of block G (locally called Koldehar, located south-east of the park) close to the Chiksana canal. The roost habitat was formed largely of *Vetiveria zizanioides*, a tall grass about 2 m high, with long, erect and rigid leaves, and *Desmostachya bipinnata*, a soft and easily bent grass about 1 m tall. The latter species may have acted as a barrier for mammalian predators, as the rustling sound produced by any ground predators entering these grasses could alert the harriers of danger.

During the study, Keoladeo National Park was identified as the biggest roost of Eurasian Marsh Harriers so far known in India. More than 150 Eurasian Marsh Harriers probably roost in the park when conditions are favourable. Conservation of the roost site in the grasslands of Block G is therefore very important.

I am grateful to the Bombay Natural History Society for the opportunity provided to work on raptors in Keoladeo National Park. I acknowledge the financial support of US Fish and Wildlife Service and Govt. of India for sponsoring the project. I thank Ms. Shruti Sharma, Director, Keoladeo National Park, for the facilities extended during the study. My special thanks go to Mr. David Ferguson, Coordinator of USF&WS, and Dr. Vibhu Prakash, Principal Scientist, BNHS, for encouragement and guiding me throughout my study. I gratefully acknowledge Dr. Roger Clarke for comments on the manuscript.

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Ashok Verma, Bombay Natural History Society, Hornbill House, Dr. Salim Ali Chowk, Shaheed Bhagat Singh Road, Mumbai-40023, India; Email: vermaasok@rediffmail.com

New and significant records from Dehra Dun valley, lower Garhwal Himalayas, India

A. P. SINGH

This paper supplements information published earlier on the birds of Dehra Dun valley and the neighbouring hills (Singh 2000). The observations presented here were based on a survey of 89 days undertaken from March 2000 to May 2002 in tropical moist deciduous sal *Shorea robusta* forests (Champion and Seth 1968) below 1000 m in the Dehra Dun valley. Information on seven species newly recorded in the valley is provided, along with recent observations of two threatened and three Near Threatened species.

NEW RECORDS FOR DEHRA DUN VALLEY

Brown Fish Owl *Ketupa zeylonensis*

An individual was observed on a big stone in a small perennial jungle stream near Karvapani (30°17'N 77°57'E) during the afternoon on 21 November 2000. On being disturbed it flew away to settle in a huge sal tree nearby. Previously, Pandey *et al.* (1994) observed this species in Rajaji National Park outside the valley. It is known from submontane Himalayas locally up to 1,500 m (Ali and Ripley 1987).